Appendix 1: Search strategy

When searched: December 2016 and January 2017

PubMed:

- ((("Infant, Newborn"[Mesh]) OR ("Infant, Extremely Premature"[Mesh] OR "Infant, Premature"[Mesh])) OR ("Infant, Low Birth Weight"[Mesh] OR "Infant, Extremely Low Birth Weight"[Mesh] OR "Infant, Very Low Birth Weight"[Mesh])) AND "Probiotics"[Majr]: 716
- (("Infant, Extremely Premature" [Mesh] OR "Infant, Extremely Low Birth Weight" [Mesh] OR "Infant, Very Low Birth Weight" [Mesh] OR "Infant, Small for Gestational Age" [Mesh] OR "Infant, Premature, Diseases" [Mesh] OR "Infant, Premature" [Mesh] OR "Infant, Newborn, Diseases" [Mesh] OR "Infant, Newborn" [Mesh] OR "Infant, Low Birth Weight" [Mesh])) AND ((("Bifidobacterium" [Mesh]) OR "Lactobacillus" [Mesh]) OR "Saccharomyces" [Mesh]): 774
- probiotics and preterm infants: **350**
- probiotics and low birth weight infants: 146
- probiotics and sepsis:321
- probiotics and ELGAN(extremely low gestational age) infants: 7
- probiotics and Necrotizing enterocolitis: 381

EMBASE: (probiotics.mp. or probiotic agent)/AND (preterm infant.mp. OR prematurity/low birth weight infant.mp. OR low birth weight/ very low birth weight infant.mp. OR very low birth weight/extremely low birth weight infant.mp. OR extremely low birth weight/small for gestational age.mp. OR small for date infant OR ELGAN.mp OR extremely low gestational age neonate.mp): **711**

CINAHL: 113

Cochrane: 84 trials

who.int /ictrp (WHO International Clinical Trials Registry Platform): 26, Relevant: 17, Recruiting: 4 (2 of the relevant)

PAS 2000-2014: 187 (probiotics), 68 (Bifidobacteria), 137 (Lactobacillus/ Lactobacilli), Saccharomyces (15)

PAS 2015: 17 (probiotics), 6 (Bifidobacteria), 4 (Lactobacillus/ Lactobacilli), Saccharomyces (2)

Grey literature search: Using term "probiotics and preterm infants"

 Ntis.gov/: 42, Relevant: 0; Opengrey.eu/: 2, Relevant: 0; Trove.nla.gov.au: 495, Duplicates: 253, Not relevant: 242